

The Official Newsletter of the Kansas City DX Club

KC DX NEWS

AB0X-EDITOR

KCDXC Website: <http://www.kcdxclub.com/>

FEB. 2023

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NEXT KCDXC MEETING: FEB. 27 -The next KCDXC meeting will be a LIVE meeting at the JOCO Library, 9875 W. 87th St., Overland Park KS, 66212. Start: 6:30pm. Zoom available also.

NEW MONTHLY FEATURE: SHACK PICTURES! This month, Ed, AI60, sends over the pic below of his radio shack. Nice set up!

Send in your shack pics to the Editor: ab0x@kc.rr.com.



KCDXC DXCC HONOR ROLL

Call	Mixed	CW	Phone	DIGI	IOTA	160	6 M	DX Challenge
AB0X	357	353	349	236		227	47	2382
W0GJ	354	344	354	292		236	20	2799
N0RB	353	347	351				23	2269
K0CA	350	349	350	331	318	112		2631
N0CWR	350	350	350	326	985	207	93	2933
NX0I	350	349	347	271		211	6	2522
K3PA	351	349	345	323		188	36	2738
K0HQW	349	333	347			33		1352
AC0A	348	321	348	24	882		15	2288
K0VXU	348	335	331	265	439	143	2	2295
KS0DX	347	324	337	225	360	107		2516
K4SV	346	340	344	337		301	87	2852
K0GY	344	340	344	290			5	2295
KB0X	336							
K0AP	334	331	325	295		47	8	2353
W0QQ	334	248	332	234	151	115	38	1937
K4SX	331	280	320	187		52	82	1773
KE5BR	335	177	297	79				742
K0THN	334	322	288	193	243	1		1929
WA0WOF	331							
W0MB	327	252	325	279		45		1849
K0XM	326	292	275	225		113	24	1858
AA0MZ	312	290	292	220	532	44	20	1296
AC0C	310	306	267	243	160	128	3	1852
K0IZ	300		300					
AD0K	265	247	88	200	209	36	6	940
NS0D	263	219	142	130		3	2	
AI60	258	230	200	171		20	10	992
W0XE	248	216	193	14				833
N0EG	243	203	169	120		20	11	783
W0DR	229	30	174	70		10	7	622
N9GB	203							
W0ZAP	154	39	76	127		21	5	565
N0RC	154	28	50			3	3	604
W0HL	96	7	50	78		5	7	231
WD0SRI	63	17	56			1	1	138

Red indicates member is at the top of the DXCC Honor Roll in that respective class. Totals are with deletions. NOTE: When changes of DXCC totals are sent in to me, they are immediately updated in the next month here in the newsletter. Send to ab0x@kc.rr.com . Please only one update a month.

The President's Corner

February 2023

Chuck KØXM

Hello members!!!

Well, the meeting in January was very productive. And the main topic will also be the topic of February's meeting- Membership. How do we increase our ranks and entice all hams (especially NEW hams) to join the club. We will discuss this month, and we should form a membership committee. Dog NEØA has already volunteered.

By the time this hits your email we should have ran our 1st burn in test of the new equipment for the CW Pileup Contest. Rick, WØZAP has gathered all the necessary items (7 laptops, a network switch, headphones, and 2 big monitors for the horse race- that shows the status of the contest as it is being run). All of us feel we need to test the setup to make sure there are no hiccups at Dayton/Xenia.

Now to the nitty gritty. As all of us probably have heard, then operation for 3YØJ on Bouvet has commenced. The operation has faced some challenges to put it mildly, and it has been real tough to hear, let alone work from KC. But some have. At this time (Feb 12) they have been on 2 radios only, with the small generator and no amps. Last report has them using boxes for the operating tables. Today's update indicates they are going to try and bring more food, the larger generator and at least one amp on shore. If they cannot, they may be QRT by the 14th. All members are safe and it sounds like it is a miracle that they even got ON the island, let alone are operating.

The main topic of discussion is the lack of intelligence, and operating standards of some of the hams around the world. This group has been constantly DQRM'ed (Deliberate QRM) to no end, and MANY, MANY Pirates are causing more headaches. The issues really can be upsetting. And if you read Eham.net forum, there are MANY armchair quarterbacks, many who have not left their mothers basement yet. In my 43+ years of DXing and operation, it amazes me to what level we can push the stupidity of some operators. At times it is sad, and at other times it just makes you want to shake your head in disbelief.

On a positive note, Duke WØQQ, and Rob KE5BR have reached DXCC Honor Roll status. Congrats guys!! Also, FT8WW has an extension and will be active another 3 weeks.

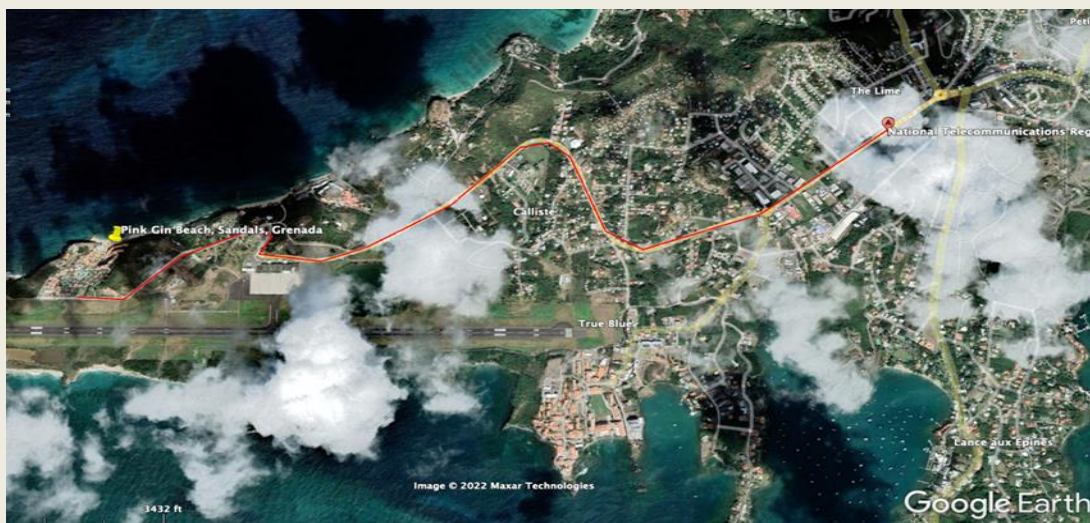
Until next month. CUL

73 es Good DX
Chuck KØXM (ex- NØBIW)

Ham Radio & Vacation in Grenada

By N9GB

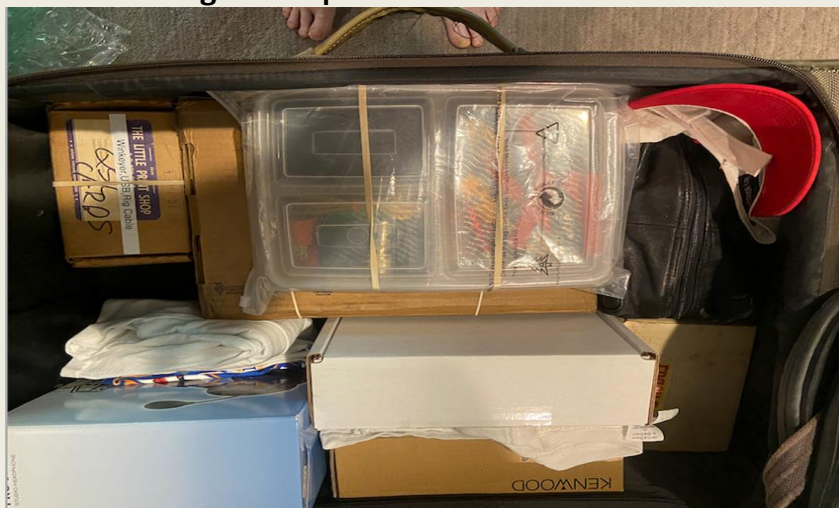
I had the first idea about combining vacation with ham radio after acquiring IC7300 in May of 2022. Conceptually, it was fairly easy but as always, the devil was in the details. Grenada and US have a reciprocal operation agreement but you still must apply for a license. I contacted DXCC desk at ARRL & NTRC (Grenada FCC equivalent) to find out more details. I hooked up with J35X, Andre who was helpful with names to contact at NTRC. Process was very straightforward. Six page application, copy of your US license, passport photo, description of equipment (with specs), pay a fee of about \$10 US for app and \$20 US for license. I requested a J38xx call because I thought return trip may be a possibility. Broached the idea of bringing radio with XYL and got "the look". But I explained it was just another fun thing to do while on vacation, but not a DXpedition and not concurrent with a contest. I planned SSB operation only before bedtime and CW after she went to sleep (generally earlier than me). No FT8 for this time as I had problems with the 7300 interface. She questioned me about how much suitcase room but agreed if I stuck to my plan. I applied at end of May and was told the license would be ready without issue. Yeah Right.....!! What no one bothered to mention was that the government in Grenada was changing hands just before we were to arrive. Which meant nothing got processed even though I was repeatedly guaranteed that the paperwork had already been sent to the minister of info for his required signature. I checked every week. In all honesty, NTRC did its job but the minister must have taken the whole month off. Same answer everytime I checked. Application was approved but just needs minister's signature. Finally, week before we left, I made arrangements to get to the airport, travel to the NTRC office, pickup the license and then go to resort. Day before we arrived on Friday, still not signed. We would be on the beach so all I needed was a convenient palm tree. Only option was for me to operate as J3/N9GB initially and pick up license (J38GB) on Monday of next week. See the map of where the NTRC office is versus where we were staying so a pickup was feasible. Monday morning called at NTRC office opening and still no signed license and minister out of town.



So the prep started with radio and antenna and band choice. Space for a dipole

really did not provide for 80m operation so focused on 40-10. Main equipment consisted of IC7300, OCFD, tuner (courtesy W0ZAP), and small switching PS. I carried the 7300 in my backpack on the plane because I did not want the baggage handlers messing with it. Everything but 7300 was in suitcase well packed. I also taped a copy of my N9GB license to the radio so when I removed the radio for the TSA inspectors, I did not get any questions about what it was.

Accessories included paddle, winkeyer, heil headset, one extension cord, 1/8" nylon rope, 4:1 balun, some Mix 31 ferrites, a small screwdriver, pliers, USB hub, zip ties, and spare fuses for the DC cable. Packed clothes around stuff. Suitcase weighed 45 lbs and got inspected twice.



Upon arrival, recon was done for the antenna location. Our corner room worked well with the space to the palm trees. I just had to pick the best one for the antenna length. I asked one of the workers if he knew of someone that could help me string the antenna and he volunteered himself.. Of course he asked a lot of questions about it and wanted to come by and see operation later.



View(above) showing our room in upper right corner with OCFD and 4:1 balun (far left). Antenna was 66 ft long with one end of the wire tied on to wood rail and

the other was tied to insulator, rope, and 1 pound weight provided by the local worker who knew exactly the right thing to use to flip over a palm tree branch. Room was 3rd Floor and about 30 ft above sidewalk level. I had two miniature 20 ft coaxes from the tuner to the antenna but only needed one.



View from balcony along the length of the antenna. This should have been towards NA. Noise was not a problem but also not super quiet.



This was view from our room towards the south looking at the “high rent district” with expensive condos and residences up on the hill. This view is reflected in the QSL card.

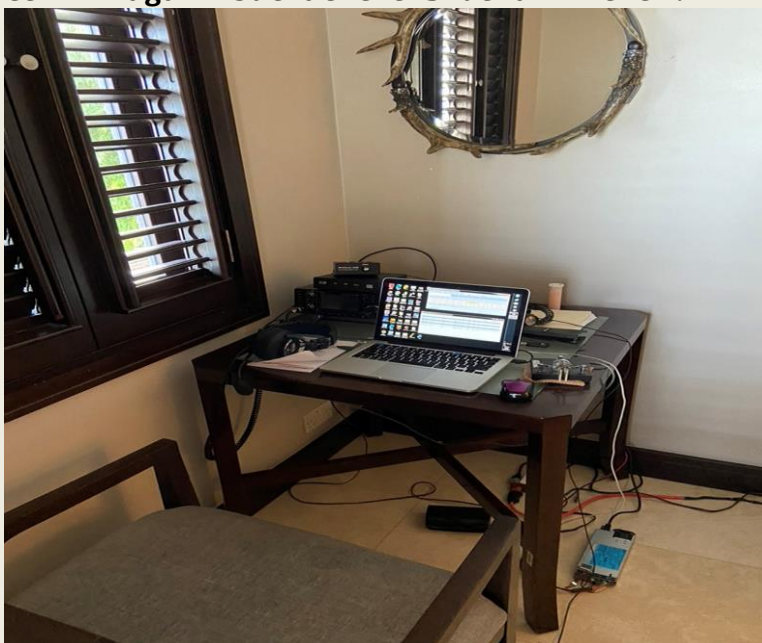


This(above) was the view towards the small dock, ocean water and ocean swimming area at the sidewalk level. Weather was great each day except for one day with

intermittent rain.



View towards the water NW again but at the sidewalk level.



Picture of operation desk. I could look outside during the day and sip a beverage while operating. 12 v PS on the floor with footswitch and DC cable. Line voltage regulation was not great and had to reduce CW power to 35 watts many times because the 12v PS did not have enough output capacitance.

How did it work? About 450 QSOs with CW slightly above 50%. Most QSOs were stateside and EU. I tried 6 meters but no signals. Most operation on 40 & 30 at night and 20,17, &15 during the afternoon. 10 meters was pretty much dead. Best DX was one schedule request I received from a VK. Started at 5:30 am and finally made contact around 6 am. Asia openings were very early Grenada time and I was not a morning person for this week. Surprisingly, very few callers from South America.



There was plenty of time for fun with locals. The one in the middle is my wife and the other two were our favorite workers at the resort and were actually part of the management team.

A few other notes. A “headlamp” is great for night operation so as not to disturb the XYL. Pile-ups were not bad. Not sure I ever needed to go split. Things I would do different would include trying to better plan for band openings to various parts of the DX world. I did not realize that this was a hard path for VK/ZL and other Asia.

BTW.....finally received the actual license for J38GB in NOVEMBER. And that only happened because I hired a local person to go get the license in November and Fed Ex it to me. But since it is good for a year, I hope to be back at the same place in 2023.-N9GB

January 30, 2023

Kansas City DX Club Meeting Minutes

The January 2022 meeting of the Kansas City DX Club was called to order early by President Chuck Kraly, K0XM at 6:29pm CST. The meeting was conducted in the Johnson County Library Main Branch Carmack Room and on Zoom.

Agenda

1. Introductions
2. Upcoming DXpeditions and Contests including FT8WW and 3Y0J
3. Dues
4. DXpedition donations
5. Discussion about increased W0AR/W0SS contest participation.
6. CW Pileup Contest Run Through
7. Discussion about membership
8. Comments and next meeting

Chuck Kraly, K0XM, began by showing fresh photos from the Marama 3Y0J boat



showing that they are at Bouvet with the island shown in the distance.

Introductions

We each introduced ourselves, first those on Zoom, then those in person. Most are working DX here and there. We are eagerly awaiting the upcoming DXpeditions.

It was announced that W0QQ Duke Neeland recently achieved DX Honor Roll. Later in the meeting KE5BR Rob Mayberry announced that he too had achieved Honor Roll status. Congratulations to these two gentlemen on this fine achievement.

Joe KA3NAM operated in the W1AW Volunteers on The Air event.

The Mine Creek hamfest is this Saturday, February 4, at LaCygne, KS.

Greg, N9GB, has his RF KIT amplifier put together. He will be operating V26DX Antigua Barbuda Feb 9 to 16.

Guests David Roberts W0QLF and Phil Fry WD0FHK introduced themselves.

Contests

NA Sprint, ARRL DX CW, CQ 160, NA QSO Party, ARRL DX SSB March 4

As usual, see the WA7BNM online calendar <https://www.contestcalendar.com/>

DXpeditions

Chuck, K0XM again provided information from the DX World website for upcoming DXpeditions. Looks like several good ones are coming up this month again.

Of course 3Y0J Bouvet, 7P8WW Lesotho until Feb 4.

This information will be provided on groups.io. Chuck also uses the NG3K Announced DX Operations website for information. This information is also available on the <https://kcdxclub.org/dxpeditions> website.

DXpedition Donations

Chuck Kraly asked if we should donate to 3B7M, a rare IOTA. Some said yes, some said no. Consensus let it be decided by committee.

Dues

Check the Roster on the club website to see if you are current on your 2023 dues. <https://kcdxclub.org/roster>

W0AR and N0SS contests

Only ten entries were received for these contests. A discussion was held about how to increase participation. The secretary recorded no serious suggestions.

Membership

Several minutes were spent discussing how we might increase our membership. One idea was to have a club QSL card with our club information on the back. It was decided to form a committee to discuss this further. Chuck KØXM said he would be on the committee. Others may have raised their hands but the secretary did not get to see them.

A related discussion about starting a sustaining fund for the club so that we might be able to help new hams financially if that were necessary.

Comments

Rick NØRB reported that the last Bouvet operation had good propagation to our area from about noon to 6pm on higher bands.

The next meeting will be February 27, 2023, the last Monday of February on Zoom and at the Johnson County Main Library.

The meeting was adjourned at 7:50pm.

Charlie Hett, KØTHN, KCDX Club Secretary.

SHOOT FOR THE MOON!

BY KYØØ

Well, testers and Dxers, I'm going to give a short primer on moon bounce in this column.

We hear all this talk about "moon bounce" and "EME". What on Earth is that all about. We might know what the initials stand for, but that's as far as it goes.

What we are doing is exactly what the terms say-transmitting a signal to the surface of the moon, and picking it up with a receiver three seconds later when it bounces back from the moon's surface.

We use CW, SSB, JT-65, and some other modulation modes to confirm contacts from other operators doing EME. The digital modes have made EME possible with single yagis, and given rovers much more flexibility as per station configuration. These ops can use much smaller antenna arrays and much lower power when roving while doing EME. They also make EME much less expensive, and even technician-class operators can get in on the action. Young people, with their computer and smart phone skills, should jump into the fray. The digitals, can snatch signals out of the noise I have trouble hearing.

EME is a propagation mode. We're just using the moon as a go-between from one op to another. There's lots of path loss here. We need the best receivers, antennas, and feed lines we can afford. RG-58 won't cut it on EME. The signals are just too weak, and fifty-eight's too lossy. Other things to look at are things like Faraday rotation of signals over and back, librations in latitude, ground effect and path loss, or what commercial radio engineers call

link margin.

Faraday rotation occurs when the signals travel through the Van Allen belts and their polarization gets turned ninety degrees. Some EME ops operate with circular polarization, and switch when they transmit. Others just deal with it.

Librations in latitude cause the EME signals to vary in strength due to the moon's motion. The moon is in synchronous mode, that is, its rotational and orbital time is exactly the same, keeping the same side toward us. Surface features of the moon vary the strength of return signals from its surface.

Most of us know what path loss is, so we can just say for beginners that the further a signal travels, the weaker it gets if it's not affected by outside influences.

Ground effect is weird. Most VHF'ers use horizontal antennas mounted on a mast which rotates in azimuth only. There's a point where the system uses the ground as a reflector when the moon is on the horizon with the system aimed at it

EME operators use different types of antenna systems, depending on environment, budget, experience, and resources.

Dishes are often used, because once they are up and running, it's easy to change bands by changing feed horns, preamps, and other hardware. N00Y, has the best EME system using a 28-foot dish antenna on 1296 megahertz and up. His echos, signals sent and received by the same station for calibration purposes, are loud enough at 1296 to be heard ten DB above the noise. When you visit him on new year's day, you can view the assembling of the system. I'll leave that as a surprise.

Others use what are called "arrays". These are multiple antennas connected and phased similar to the way we phase verticals on forty and eighty meters. They're much less expensive than big dishes, but unlike dishes, they only operate on one band. They also are more difficult to keep aligned to make sure the beam pattern is as sharp as possible.

EME is done from six meters to the outer limits. The higher you go, though, the harder it gets due to line losses, path loss, beam width on dishes, and transmit power output.

Equipment in the shack used for EME is exactly what we use for weak signal terrestrial propagation. It may need to be tuned for the parts of the bands where EME is done, but that's about all. The new solid state power-FET transmit amplifiers allow for much higher transmitter power, helping with path loss problems, and allowing rovers to operate more effectively.

Antenna rotation for EME is more complicated than for terrestrial operation because we want to, if we can, be able to raise and lower our arrays to keep them pointed at the moon. We use our normal rotator for horizontal or azimuth rotation, and a rotator that twists the array so the front looks up or down.

There's a two DB difference between apollune and perilune. Apolune is the furthest distance from the Earth, and perilune is the closest point in the moon's orbit.

Although Doppler shift on signals is small, digital modes can suffer when it's not considered. CW ops have more latitude to ignore it, since we can copy in our heads. We set the receiver on the frequency agreed on when setting up the sched, and leave it there—we don't move it. We move the transmitter to stay on that frequency to hear the signal in the receiver. If we move the receiver's frequency, we will lose the signal and get lost. We use the same technique when operating a linear translator onboard a satellite. You can hear this Doppler shift when you listen to signals come back from the moon. You'll notice it's more pronounced at perilune because the moon's moving faster in its orbit around the Earth. There is also just a little red shifting as the signal goes up, and blue shifting as it approaches us. Not much.

Another gremlin to work around is sky noise. This takes a couple of forms—sun noise and galactic noise. Each of these can vary with operating frequency, but if the moon is near these noise sources, they can become bothersome. They also can be used to check receiver performance by aiming the antenna towards them, taking a peak reading, then turning to a cold sky of fifty degrees Kelvin. We did this when Tom Bishop, K0TLM and I helped Mike Vestal, W0YZS get his worked all states on MHC432.

What's nice in the software tracking realm is you can use any high-quality to:

1. give you data on where the moon is so you can point where you're supposed to, and,
2. set up control hardware to follow the moon automatically. This allows you to stay in where it's warm and not have to go out and site the moon in ten below Celsius blowing conditions. This hardware can be set up to stop when the system gets to a point in its travel where the moon is not available, and keep the antenna from crashing to earth. This is usually done by placing limit switches at key points, stopping the system from further travel.

Yes, you can use EME to obtain VUCC, worked all continents, worked all states, and other VHF EME certificates. Check with the League for more.-KY00

SEND IN YOUR 2023 KCDXC DUES TO W0ZAP USING PAYPAL AT
<https://kcdxclub.org/> .

W0AR DX CONTEST	2022 RESULTS		
HIGH POWER	COUNTRIES	ZONES	SCORE
W0MB	232	40	9280
K0BRO	227	40	9080
N0RB	146	39	5694
LOW POWER			
K0BRO	220	40	8800
AB0X	183	40	7320
K0THN	142	33	4686
QRP POWER			
AB0X	166	36	5976
WIRES & VERT.			
K0THN	142	33	4686
N0SS CONTEST	2022 RESULTS		SCORE
W0MB			6,840,370
AI60			2,532,730

All participants will receive nice awards. Join the 2023 W0AR and N0SS Contests for 2023. Check last month's newsletter or the KCDXC web page for the W0AR and N0SS Contest Rules: <https://kcdxclub.org/w0ar-dx-challenge> & <https://kcdxclub.org/the-n0ss-tom-hammond-memorial> .

**SEND IN YOUR 2023 CLUB DUES TO W0ZAP!
USE THE PAYPAL LINK ON THE KCDXC WEB
PAGE: <https://kcdxclub.org/>**

DX NEWS & VIEWS

Because of the size of this month's newsletter I will make this month's column very brief. **Every club member who worked 3Y0J should be congratulated!** It was certainly a challenge. The pic on the right of their operating site gives one a clear understanding why they were so hard to work. Most of the USA is directly behind that large mountain!

BY AB0X



W0AR & N0SS Contests:

With the ARRL DX Contests coming soon along with the WPX, there's still plenty of time to get involved in our two yearly KCDXC contests. One DX contest can make you have a competitive score!

The KCDXC is committed to giving out very nice awards each year to all who participate in W0AR and N0SS. Remember, first time participants qualify for the "Rookie" Class. Join in the fun, and accept the challenge!!

N0AG TESTS NEW SECURITY SYSTEM AT HOME:





KCDX CLUB
KEEPING THE DAYTON TRADITION ALIVE!



BigExpert



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The ARRL logo is a diamond shape containing the letters A, V, Y, R, L. It is positioned over a globe with a radio wave graphic passing through it.A logo for Associated Radio. It features a stylized antenna graphic on the left, with the text "AssociatedRadio" in the center. Below the text is the phone number "800.497.1457" and a ground symbol on the right.

AssociatedRadio
800.497.1457